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PATENT

Docket No. SJ0920010058US1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Tsann Lin et al.

Serial No.: 10/066,835

Filed: February 4, 2002

For: **IN-SITU OXIDIZED FILMS FOR USE AS GAP
LAYERS FOR A SPIN-VALVE SENSOR AND
METHODS OF MANUFACTURE**

Examiner: Kevin M. Bernatz

REQUEST FOR RECONSIDERATION AND AMENDMENT

Mail Stop Non-Fee Amendment
Commissioner for Patents and Trademarks
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In response to the Office Action mailed on August 1, 2003, Notice of Appeal, and a subsequent telephone interview, Applicants respectfully request the reconsideration of the present application in view of the following amendments and remarks.

*Ok to Enter,
but note that
new claims 13-15
are actually
claims 27-29
-KMB
3/18/04*

detect changes in resistance of the spin-valve sensor caused by rotation of the magnetization of the sensing layers relative to the fixed magnetizations of the pinned layers in response to changing magnetic fields induced by the magnetically recorded data.

(13-26 withdrawn, but still pending)

27

13. (New) The spin-valve sensor of claim 1, wherein each *in-situ* oxidized metallic film is formed by sputter-depositing a pure metal in a vacuum and subsequently introducing oxygen to the pure metal film to completely oxidize the metal.

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14. (New) The spin-valve sensor of claim 1, wherein each *in-situ* oxidized metallic film is sputter-deposited to a thickness of up to about ten Angstroms.

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15. (New) The spin-valve sensor of claim 1, wherein each *in-situ* oxidized metallic film is formed such that contaminants are substantially eliminated from the metallic film.